

**ANNUAL REPORT**  
**to the**  
**GOVERNOR and GENERAL ASSEMBLY**  
**on the**  
**SOLID WASTE MANAGEMENT ACT OF 1991**  
**Fiscal Year 2003-2004**



**February 2005**

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**Division of Solid Waste Management**  
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## **LIST OF ABBREVIATIONS**

<b>ARD</b>	<b>America Recycles Day</b>
<b>APR</b>	<b>Annual Progress Reports</b>
<b>CIS</b>	<b>Center for Industrial Services</b>
<b>CTAS</b>	<b>County Technical Assistance Service</b>
<b>DCA</b>	<b>Division of Community Assistance</b>
<b>FY 03-04</b>	<b>State of Tennessee fiscal year beginning July 1 and ending June 30</b>
<b>HHW</b>	<b>Household Hazardous Waste</b>
<b>MTAS</b>	<b>Municipal Technical Advisory Service</b>
<b>Region</b>	<b>Municipal Solid Waste Planning Region</b>
<b>RMCT</b>	<b>Recycling Marketing Cooperative for Tennessee</b>
<b>RMD</b>	<b>Recycling Markets Directory</b>
<b>SERP</b>	<b>State Employee Recycling Program</b>
<b>SWAC</b>	<b>Solid Waste Advisory Committee</b>
<b>SWMA</b>	<b>Solid Waste Management Act of 1991</b>
<b>SWMF</b>	<b>Solid Waste Management Fund</b>
<b>TCA</b>	<b>Tennessee Code Annotated</b>
<b>TDF</b>	<b>Tire Derived Fuel</b>
<b>TME</b>	<b>Tennessee Materials Exchange</b>
<b>TDEC</b>	<b>Tennessee Department of Environment and Conservation</b>
<b>TGAC</b>	<b>Tennessee Great American Clean-up</b>
<b>TN-SWEP</b>	<b>Tennessee Solid Waste Education Project</b>
<b>TRR</b>	<b>Tennessee Recycling Report</b>
<b>UT</b>	<b>University of Tennessee</b>
<b>WMREI</b>	<b>Waste Management Research and Education Institute</b>

## INTRODUCTION

Staff in the Department of Environment and Conservation (TDEC), Division of Solid Waste Management, Solid Waste Assistance Programs prepared this Annual Report on Tennessee's solid waste management system for the fiscal year 2003-2004 (FY 03-04). The Solid Waste Assistance Programs were part of the Division of Community Assistance (DCA) during FY 03-04. This report is hereby submitted to the Governor and General Assembly as required by the Solid Waste Management Act of 1991 (SWMA).

The SWMA established the Solid Waste Management Fund (SWMF) for authorized activities. Payments are deposited into this fund from a \$0.75 surcharge imposed on each ton of municipal solid waste received at all Class I solid waste disposal facilities or incinerators. The 2004 Amendments to the SWMA extend the payment of this surcharge to June 30, 2008. Payments are also deposited from the Department of Revenue's collection of the tire pre-disposal fee on the retail sale of new tires. Retail dealers collect \$1.00 at the time a tire is purchased, keeping \$0.10 for administrative purposes and remitting \$0.90 to the Department of Revenue for deposit into the SWMF.

The 1999 Amendments established December 31, 2003 as the new date for Municipal Solid Waste Planning Regions (Regions) to meet the 25 percent per capita (by weight) reduction and diversion goal for municipal solid waste disposed in Class I landfills or incinerators. The 1999 Amendments established 1995 as the new base year. Additionally, the 1999 Amendments allowed for the economic growth of a Region to be used as a factor in determining progress toward the 2003 goal. A database that collects information from Annual Progress Reports (APR) improved DCA's ability to analyze data and overview solid waste activities and programs across the state. Staff made on-site visits to forty-eight counties to gain a better understanding of county programs and reporting of the waste reduction and diversion goal.

Tires continued to be an important issue in FY 03-04. The 1999 Amendments prohibit shredded tires from being landfilled by counties after July 1, 2002. Shelby County was the last county to contract for the beneficial use of tires. Their contract with Eaton-Moery Environmental Services began July 1, 2003. Staff continue to monitor waste tire manifests and assist counties with monitoring whether tire dealers bringing tires to their collection sites are paying the tire pre-disposal fee required by TCA §67-4-1604. Approximately 2,100 tire dealers across the state were monitored during FY 03-04.

DCA appointed a SWMA Review Task Force in conjunction with the Solid Waste Advisory Committee (SWAC) to review the SWMA. The SWMA Review Task Force completed their review and presented draft recommendations to the SWAC in April 2003. The Task Force was directed by the SWAC to present the draft recommendations statewide and seek local input. Meetings were held in Gatlinburg, Nashville, Chattanooga, Knoxville, and Jackson in 2003 to present the draft recommendations. Final recommendations were presented to the SWAC in June 2003. The SWAC took the recommendations under advisement and at their October 2003 meeting, decided to support seeking reauthorization of the state tipping fee surcharge, eliminating the Five-Year Updates to the Ten-Year Plans, and continuing the 25 percent waste reduction and diversion goal.

In the second year of its contract with MSE Environmental, the State provided 58 one-day household hazardous waste collection events, one of which was in Shelby County. Approximately 5,000 gallons of latex paint was diverted from the collection events and used by the local government in painting of jails, schools and other projects defined in their Main Street revitalization efforts. Also, 177,503 pounds of electronic waste was collected and properly disposed of at no cost to the State. The MSE contract will continue until March 14, 2005, with the option of three one-year renewals after that time.

DCA continued to promote statewide programs such as the America Recycles Day campaign, the Great American Cleanup, recycling at thirty-one state parks, recycling at one of Tennessee's Welcome Centers, and a demonstration project to clean up potentially dangerous chemicals in secondary school science laboratories.

This report provides a brief description of programs administered under the SWMA including related budgetary information. The summary at the end of this report gives insight into future opportunities and program efforts to support and improve comprehensive solid waste management in Tennessee.

## **I. PLANNING**

### **A. Progress Toward Solid Waste Reduction Goals**

The SWMA originally challenged each Region to reduce the amount of solid waste disposed in Class I landfills and incinerators by 25 percent. The reduction goal used 1989 as a base year and compared it with December 31, 1995 to track the progress towards goal attainment. According to the 1991 study performed by University of Tennessee Waste Management Research and Education Institute (UT WMREI), Tennessee businesses, industries, governments, institutions, and citizens disposed of 5,381,595 tons of solid waste in 1989, which equated to 1.10 tons per capita.

The 1999 Amendments established 1995 as the new base year by which to compare the waste disposed in 2003. The generation for 1995 was 6,884,772 tons or 1.31 tons per capita. Based on submissions taken from the APR, in 2003, the State generated 11,738,642 tons of solid waste with 6,287,488 tons being disposed in Class I landfills and 5,450,795 tons diverted or recycled. This equates to a disposal rate of 1.08 tons per capita. Using the 1995 base year, the per capita waste reduction and diversion rate for 2003 is 18.1 percent. See Appendix A.

In 1989, there were seventy-nine publicly owned MSW landfills, three publicly owned incinerators, and seventeen privately owned MSW landfills. Eight-two of the ninety-five Tennessee counties possessed a sanitary landfill. In FY 03-04, there were only thirty-four permitted Class I (sanitary) landfills, nineteen of which were publicly owned. This decline in facilities, particularly county owned ones, can be partially attributed to Subtitle D regulations that mandated stricter requirements for the construction and operation of landfills and made small landfills less economically feasible. There are seventy-one Class III/IV (construction & demolition) landfills used by sixty-one counties. Forty-four of the Class III/IV landfills are county-owned. Approximately 1,653,619 tons of material were diverted to Class III/IV landfills in 2003.

The legislature amended the SWMA in 2004 to allow the APR to act in the capacity of the Five-Year Update. Each Region will now use its 2002 APR to project changes in the future and make modifications to the Region's Ten-Year Plan.

DCA, the Regions, and the SWAC continued a dialogue regarding waste reduction and diversion. Potential methods to more accurately calculate the reduction and diversion were explored. Staff continue to study programs in other states to determine the actions and options in a viable, integrated solid waste program. Toward this end, DCA contracted with the University of Tennessee County Technical Assistance Service (CTAS) to maintain and update a database to capture information contained in the APR. DCA used this database to assist in analyzing the Regions' effort toward meeting the 25 percent reduction and diversion goal for 2003.

According to data collected from the 2003 APR, the number of recycling, collection, and processing facilities in Tennessee has dramatically increased from 160 to 913 documented centers since 1992. This number includes operations run by county and city governments, non-profit organizations, and businesses. Additionally, Tennessee has 806 active used oil collection centers for 'do-it-yourselfers' to safely dispose their used oil. Since 1995, TDEC has provided grants for counties to collect waste tires for beneficial end uses such as tire-derived fuel (tdf). As a result, over nineteen million tires were diverted from landfills.

### **B. Five-Year Updates to the Ten-Year Plans**

In the late 1980s, local governments were faced with the expensive and often controversial challenge of finding environmentally safe disposal capacity for municipal solid waste. Accordingly, state lawmakers administrators, technical assistance providers, and industry leaders collaborated to find a solution. They concluded that long-range planning was essential for local governments to meet State and Federal mandates regarding modern, safe

municipal solid waste disposal. As a result of these discussions, the SWMA was enacted. The SWMA requires Regions to look into the future and provide comprehensive, integrated Ten-Year Plans, Five-Year Updates, and Annual Progress Reports. The sixty-six Regional Planning Boards bear the responsibility for developing the plans and APR and for submitting them to DCA [TCA §68-211-813(c) and 871(a)].

The Ten-Year Plans for the first cycle (1994-2004) were due in July of 1994 [TCA §68-211-(813-815)]. TDEC approved the last of these original plans in 1997. The Five-Year Updates were mid-term revisions of the Ten-Year Plans that updated progress made in the first five years and projected planning goals for the next ten years. The Five-Year Updates were due five years after the approval of each of the original plans [TCA §68-211-814(a)(2)]. Every Region has submitted and received approval of a Five-Year Update.

In 2004, the General Assembly amended the SWMA to incorporate the Five-Year Report into the Annual Progress Report, thus making the APR a combined planning and reporting document for the Regions.

Participation, cooperation, communication, and interaction amongst the general public, local officials, members of the business community, and members of the environmental community within the Region are key to the success of the planning process. Regional Planning Boards are expected to seek and use input from public and private entities within the Region in order to complete their planning responsibilities. Each completed APR must be reviewed and approved by the county legislative bodies in the Region or Part 9 Solid Waste Authority (if one has been formed within the Region) [TCA §68-211-815(b)(15)].

DCA contracts with technical assistance providers to aid Regional Planning Boards to compile information and to answer technical questions concerning solid waste issues. Each Development District has staff specifically designated to assist the Regions with their planning and reporting efforts. CTAS and the Municipal Technical Advisory Service (MTAS) also have professional solid waste consultants on staff to assist Regions and local governments. Additionally, DCA provides technical and financial assistance for solid waste initiatives.

DCA implemented strategies in FY 03-04 to improve timeliness and accuracy of the APR. Staff met with representatives from the Regions to assist them in identifying unreported sources of diversion. DCA also implemented electronic data submissions to replace paper forms. DCA will continue to examine and streamline methodologies and strategies to provide greater accuracy and better services to the Regions.

## **II. STATEWIDE SERVICES**

### **A. Household Hazardous Waste (HHW)**

The HHW Mobile Collection Service continues to be an important component of integrated solid waste management. Improper storage and disposal of HHW is unsafe for the public, sanitation workers, and the environment. The program provides convenient disposal at no charge to households, which lack the disposal means available to businesses and institutions. Ninety-two counties have participated in the HHW Mobile Collection Service since the program's inception in 1993. DCA continues to provide up to four events each Saturday during the collection "season." MSE Environmental was the State's contractor for the mobile collection service. The contract will continue until March 14, 2005, with the option of three one-year renewals after that time.

In FY 03-04, there were 58 one-day HHW events. One of these was held in Shelby County. The collection program received a variety of wastes including paint, flammable liquids, corrosives, oxidizers, elemental mercury, electronics, batteries, and pesticides. The service was utilized by 21,558 households, that properly disposed of 1,438,753 pounds of waste. An average event yielded just over 24,000 pounds of HHW at a cost of almost \$20,000 per event. The total cost for the 57 rural county sweeps was \$1,063,794 and for the one urban collection was \$84,589 resulting in an overall cost per pound of \$0.74 and an overall cost per household of \$53.26. Appendix B shows data for the FY 03-04 HHW Mobile Collection Service.

Chattanooga, Knoxville, and Nashville have permanent HHW collection facilities and are not included in these calculations. These facilities were constructed with grants from DCA, as provided in the SWMA [TCA §68-21-828].

## **B. Waste Tire Management**

In 1998, the SWMA was amended to prohibit counties from placing shredded tires in landfills after July 1, 2002 if the net cost of shredding, transporting, and disposing of waste tires exceeds the cost of an available beneficial end use. FY 01-02 was the last year the statewide shredding service was provided to counties. The City of Memphis continued shredding and landfilling of waste tires through June 30, 2003 based upon the statutory amendment. Beginning with FY 03-04, Shelby County established a waste tire collection site and began collecting tires and shipping them to a beneficial end use through a contract with Eaton-Moery Environmental Services, Inc. All of Tennessee's ninety-five counties are now sending tires to beneficial end use.

DCA continued the Waste Tire Grant Program in FY 03-04. The purpose of the grant program is two-fold: to encourage proper disposal of scrap tires by generators and to encourage the beneficial end use of scrap tires. Beneficial end uses for scrap tires include cement manufacturing, tire-derived fuel (tdf) for use in industrial boilers, and certain civil engineering applications. As a result of this grant program, 58,465 tons of tires were diverted from landfills to beneficial end uses in FY 03-04. For more information about the Waste Tire Grant Program, see Section IV, Subsection D.

There are presently four end-users of waste tires and tdf in Tennessee: the Tennessee Valley Authority's Allen Steam Plant in Memphis, Bowater Incorporated's paper mill in Calhoun, Cemex in Knoxville, and Gerdau Ameristeel in Jackson. Many of Tennessee's waste tires are processed and consumed by out-of-state end-users.

## **C. Unpermitted Waste Tire Site Abatement**

DCA maintains an inventory and priority list of unpermitted waste tire sites that pose an imminent threat to the public health and the environment. The inventory contains fifty sites located in twenty-two counties. DCA partnered with the Division of Solid Waste Management to abate a commercial tire site at Capal Industries in Moscow, TN that resulted from the discontinuance of the business. DCA also partnered with Fayette County and their tire beneficial end use processor, Mac Tire Recyclers, for cleanup of the Capal site. TDEC will continue to seek partnerships with local governments as unpermitted waste tire site cases reach the appropriate level of enforcement.

## **D. Community Solid Waste Education**

### **Tennessee Solid Waste Education Project (TN-SWEP)**

Since 1995, TN-SWEP has provided consultative services, developed curriculum materials, and provided workshops and in-service training for teachers as well as solid waste education to K-12 students statewide. This year, staff worked to better coordinate TN-SWEP services with TDEC's Green Schools program, and discussed opportunities and needs for doing more evaluation of TN-SWEP's benefits.

TN-SWEP staff made 152 classroom presentations, 9 in-service training sessions, and 52 curriculum workshops for teachers and other solid waste educators. Staff attended sixty-five meetings with county solid waste managers, Keep Tennessee Beautiful coordinators, school principals and administrators, and city and county recycling coordinators. The results of some of these meetings facilitated county recycling coordinators and teachers working together on projects to develop/expand school recycling or composting programs. TN-SWEP staff provided curriculum sessions at the annual conferences for the Tennessee Science Teachers' Association and the Tennessee Environmental Education Association, as well as working with pre-service teachers at Middle Tennessee State University, Union University, Tusculum College, and UT-Martin.

TN-SWEP staff conducted a distance learning satellite broadcast from Middle Tennessee State University for America Recycles Day; set up a “Recycling Saves Energy” exhibit for an Energy Education weekend at the Adventure Science Museum in Nashville, which had more than 1057 visitors; continued collaboration with Keep Monroe Beautiful to run the Waste Education Station program in Monroe County; continued to participate in planning and implementing major environmental education programs in counties, such as making presentations to more than 1400 students at the Madison County Environmental Fair, more than 1260 students at the Bedford County Environmental Awareness Fair, 425 students at the Keep Loudon Beautiful Earth Day event, and 300 students at the Crockett County Ag Day; worked on summer education programs with more than 325 Girl Scouts and Cub Scouts and workshops for 44 scout leaders.

## **E. Outreach**

DCA continued its commitment to solid waste outreach. At major conferences and meetings throughout the year, DCA staff made presentations to local governments and interested groups on landfill gas recycling, recycling in a slow economy, household paint recycling, construction and demolition waste recovery and reuse, and availability of grant funding.

### **America Recycles Day (ARD)**

America Recycles Day is celebrated nationally every year on November 15 to help promote recycling and the “buy recycled” message. Four-two states plus the District of Columbia and the Commonwealth of Puerto Rico officially participated in America Recycles Day 2003. In Tennessee, promotion of ARD was a coordinated effort by TDEC and the Tennessee Recycling Coalition. A variety of organizations including Keep America Beautiful affiliates, County Agricultural Extension Services, county and city governments, and grass-roots recycling organizations held local events. Tennessee’s promotion of the national event kicked off September 15 and ran through the national celebration on November 15. The promotion for 2003 focused on the financial benefits of recycling with the theme “Recycle-It Just Makes Cents!” During the ARD campaign, nearly 7,500 Tennesseans signed recycling promises.

### **Tennessee Great American Cleanup (TGAC)**

TDEC again participated in the Tennessee Great American Cleanup, sponsored by Keep Tennessee Beautiful. TDEC hosted the 2004 Great American Cleanup Clothing Drive on May 5-6 and May 12-13, at the Bicentennial Mall, in Nashville. TDEC promoted the TGAC clothing drive to both State employees in Nashville and the general public. The goal was to educate the public on the benefits of clothing reuse as a way to help the needy and save valuable landfill space. This successful promotion allowed personnel from eight state government offices to contribute to the 6,020 pounds of clothes collected during this event. In addition to collecting clothes, DCA staff distributed flower seeds donated by a national sponsor. Radio and print media advertised the event. Recipients of this year’s donations were Goodwill Industries and Catholic Charities. All good, used clothing was accepted; volunteers helped unload cars and tax receipts were available. Goodwill Industries picked up the items the second week; along with clothing, they took household items such as furniture, toys, books, and usable electronics, but no computers.

### **School Laboratory Cleanout Pilot Project**

DCA and the Department of Education coordinated a pilot project to collect unknown, unusable, outdated, and potentially dangerous chemicals from Tennessee secondary school laboratories. The primary objective of the project was to demonstrate the statewide need to reduce the potential for accidents and/or contamination of the environment. The secondary objective was to provide a source of readily available, multi-disciplinary, environmentally sound information and references for school laboratory chemical management operations in Tennessee secondary schools. The project included on-site chemical management assistance, chemical segregation, and disposal at no cost to the selected school. The pilot project was a cooperative effort of the Tennessee Departments of Environment and Conservation, Agriculture, and Education; the Tennessee Valley Authority; Onyx Environmental Inc.; the Tennessee Science Teachers Association; and other organizations.



## **F. State Employees Recycling Program (SERP)**

DCA administers the State Employees Recycling Program. Combined Resources, Inc., formerly Alliance Recycling & Waste, Inc., has continued as the State's contractor for paper, plastic, and aluminum recycling. Local recycling programs allows the inclusion of the SERP in Nashville, Chattanooga, Johnson City, Columbia, Cookeville, Jamestown, Oak Ridge, and Knoxville. In FY 03-04, state employees recycled 1,001.28 tons of paper, generating more than \$21,192 in revenue and saving \$30,038 in avoided landfill costs. The revenues received from the SERP are deposited in the SWMF.

## **III. TECHNICAL ASSISTANCE**

### **A. Development Districts**

The nine Development Districts provided a variety of solid waste technical assistance to counties and Regions in FY 03-04. They assisted in the compilation of data that was vital for preparation of many Regions' APR. They assisted counties and Regions with the development and expansion of solid waste programs and facilities. The districts assisted with coordination and advertisement of HHW collection events, workshops, seminars, and meetings relating to solid waste initiatives.

### **B. University of Tennessee – County Technical Assistance Service (CTAS)**

DCA contracted with CTAS to provide technical assistance to counties, municipalities, Regions, and solid waste authorities for the following services:

- Assist in developing and updating Ten-Year Plans and APR;
- Assist and advise in upgrading and maintaining solid waste collection systems, including convenience centers and transfer stations;
- Assist and advise in establishing, upgrading, and maintaining waste reduction systems, including processing and recycling facilities and programs;
- Assist in upgrading and maintaining disposal systems;
- Develop and offer short courses and workshops concerning solid waste management, pollution prevention, source reduction, and recycling for continuing education and training for local government officials; and
- Develop a statewide database of solid waste facilities and programs using a geographic information system (GIS).

CTAS can provide additional technical assistance on how to conduct a survey on the composition of solid waste as well as how to manage solid waste programs. CTAS can also provide sample ordinances, procedural handbooks, and contracts. During FY 03-04, CTAS completed 616 contacts with counties, municipalities, solid waste authorities and Regions providing technical assistance. CTAS has been an active participant in the SWMA Review Process Task Force.

### **C. University of Tennessee - Center for Industrial Services (CIS)**

DCA contracted with CIS to provide technical assistance to industries and small businesses on how to reduce solid and hazardous waste generation as follows:

- Provide on-site technical assistance to identify and evaluate waste streams and to determine recyclable content;
- Operate a web-based waste reduction information clearinghouse;
- Provide training, workshops, site visits, and telephone assistance related to waste reduction issues; and
- Assist with related solid waste planning and management issues.

CIS provided information to the public through their website and related links. Two examples are the Tennessee Materials Exchange (TME) and the Recycling Markets Directory (RMD), both of which are posted at [www.cis.utk.edu](http://www.cis.utk.edu).

The TME promotes the beneficial use of material resources, especially those considered to be wastes destined for disposal. This free service helps Tennessee business and industry find markets for industrial by-products, surplus materials, and wastes. Material that one company considers waste may be raw material to another. The TME lists potentially useful materials, available and wanted, and serves as a matchmaker between those who have materials and those who want them. CIS updates the TME listing three times a year (<http://www.cis.utk.edu/cgi-bin/tme>).

The RMD is a database of information about companies that purchase recyclable materials. To be listed in the RMD, companies fill out a form with contact information, materials purchased, service area, etc. Firms with recyclable items to sell can search the RMD in several ways: by company name, by company location, or by the type of materials purchased. Only companies that are actively recycling materials generated in Tennessee are included. Companies with expansion plans in Tennessee are not added until their facilities are operational. City and county recycling collection programs are not included. The data is constantly evolving and requires periodic updates. The RMD is maintained by CIS (<http://www.cis.utk.edu/cgi-bin/RMD/searchRMD.pl>).

CIS, DCA, and the Solid Waste Association of North America (SWANA) partnered on development of a safety video for use in training landfill employees. The video entitled, Landfill Safety, was presented at the Solid/Hazardous Waste Conference in May 2004 and then distributed to all ninety-five counties and their solid waste directors. Packer Industries hosted an additional demonstration for builders in the Nashville area on recycling of waste building materials generated at the job site. If builders adopt the demonstrated practices, there is great potential to divert large amounts of construction and demolition wastes from landfills.

For a second season, CIS in conjunction with a Tennessee farmer field-tested application of gypsum and wood waste materials on farm crops. Preliminary results indicate an approximate 20 percent increase in yield. CIS also worked with the University of Tennessee's Agricultural Department for demonstrations at an agricultural experiment station in East Tennessee. This demonstration also indicates an increased yield in crops tested. Additionally, this application provided a lime application equivalence as well as increased tilth in the soil.

#### **D. Recycling Activities**

##### **Inventory of Recycling Operations**

DCA continues to receive reports of the volume and types of materials recovered and processed for recycling within the state. The *Tennessee Recycling Report (TRR)* is part of the APR. The TRR contains information regarding collection of recyclables.

##### **Recycling Marketing Cooperative for Tennessee (RMCT)**

The Recycling Marketing Cooperative for Tennessee is a non-profit organization contracted to DCA to assist in marketing recyclables and to fulfill the requirements set forth in TCA §68-211-826. RMCT seeks out the most cost-effective markets for recyclables and combines materials from small recycling programs with those of larger programs to minimize transportation costs and maximize prices paid for the materials. During FY 03-04, RMCT assisted local solid waste programs in marketing more than 9,950 tons of recyclable materials and provided over \$147,600 in revenue enhancement for those programs. RMCT's efforts also provided over \$298,500 in increased savings by diverting recyclable materials and avoiding the landfill costs. During the year, RMCT made ninety-two site visits to assist counties and municipalities and provided assistance to Bradley, Carroll, Henderson, McMinn, Putnam, Roane, and Van Buren Counties, and the Cities of Cleveland and Athens to start or improve recycling programs. RMCT is currently working with forty-two counties and eight cities across Tennessee to assist in marketing materials, setting up recycling programs, writing grants, or researching information about marketing or systems.

## **State Parks Recycling**

With the assistance of DCA, recycling programs were initiated at five additional state parks, as well as the marinas at Pickwick State Park and Paris Landing State Park in FY 03-04. Recycling bins were furnished by TDEC and all recyclables are taken to local county convenience centers. The parks collect paper, aluminum, steel, cardboard, as well as #1 and #2 plastic. The marinas collect used oil, plastic, and aluminum. There are active recycling programs in thirty-one Tennessee State Parks.

## **IV. FINANCIAL ASSISTANCE**

DCA reimbursed local governments and non-profit organizations a total of \$5,435,623 in FY 03-04. There are six separate grant program areas.

### **A. Recycling Equipment**

In September 2003, DCA notified eligible local governments and non-profit organizations of the availability of recycling equipment grants. DCA mailed guidance and application forms to approximately 550 cities, counties, solid waste authorities, and non-profit organizations. The counties and municipalities located in the eleven urban counties that qualified for recycling rebates were not eligible for these grants. A total of 65 applications with requests totaling \$1,602,212 were received while the budgeted funds for this program were \$400,000. Twenty-two awards for \$365,997 were made for this program in FY 03-04 (see Appendix C).

### **B. Recycling Rebates**

In accordance with TCA §68-211-825, the eleven counties that generate the greatest amounts of solid waste are eligible to receive rebates instead of grants to use for recycling purposes. In FY 03-04, these counties were Davidson, Hamilton, Knox, Madison, Rutherford, Sevier, Shelby, Sullivan, Sumner, Washington, and Williamson. Municipalities that operate collection and/or disposal facilities within these counties are also eligible for the recycling rebates. The county and the municipalities within the county receive the rebate based on population.

In October of 2003, DCA mailed guidance and application documents to the eleven counties and fifty-three municipalities eligible to receive recycling rebates. Some cities chose to give their funding to the county for recycling. DCA expended \$558,622 in rebates for FY 03-04 (see Appendix D).

### **C. Household Hazardous Waste Permanent Facilities Operation and Maintenance**

A 1996 amendment to the SWMA allows grants for annual operation and maintenance of a permanent HHW collection facility if funds are available. The cities of Chattanooga, Knoxville, and Nashville received household hazardous waste operation and maintenance grants in the amount of \$85,000 each. In FY 03-04 DCA expended \$255,000 for these grants.

### **D. Waste Tires**

In June 1995, DCA initiated the Waste Tire Grant Program to assist counties in locating, collecting, and properly disposing waste tires with beneficial end use being the ultimate goal. Each county's annual reimbursement is based on its historical generation rate and its current waste stream at a rate of \$70.00 per ton.

In accordance with TCA §68-211-867(2), counties were prohibited from disposing of shredded waste tires in a landfill after July 1, 2002. In FY 03-04, DCA gave eighty-five counties grants for the location, collection, and approved beneficial end-use of tires. TDEC reimbursed counties \$3,895,928 through the Waste Tire Grant Program (see Appendix E). The participating grantees collected 58,465 tons or 5,846,500 passenger tire equivalents and processed them to beneficial end use.

## **E. Development Districts**

In FY 03-04, DCA awarded each of the nine Development Districts a \$50,000 grant to provide solid waste assistance to their districts. This assistance involved implementing and updating Ten-Year Plans, maintaining the Needs Assessment report, assisting in maintaining and/or developing solid waste programs and projects, and assisting in securing grants from DCA. DCA reimbursed \$433,527 to the Development Districts.

## **F. Waste Reduction**

In October of 2003, DCA mailed guidance and application forms to approximately 550 cities, counties, solid waste authorities, and non-profit organizations for this new grant offering. This grant may be used for capital costs to establish, upgrade, or expand a facility or program to enhance waste reduction efforts in a solid waste region including costs for education for adults. A total of 42 applications with requests totaling \$9,785,704 were received while the budgeted funds for this program were \$4,000,000. Twenty-three awards for \$4,148,435 were made for this program in FY 03-04 (see Appendix F). The Department authorized a second offering for FY 04-05 with \$2,500,000 set aside for funding.

# **V. SOLID WASTE MANAGEMENT FUND AND EXPENDITURES**

## **A. Fund Revenues**

The two main revenue sources to the SWMF are the tire pre-disposal fee and the landfill surcharge. On October 1, 1991, the Department of Revenue began collecting a \$1 per tire pre-disposal fee on the retail sale of new tires. Retail tire dealers keep \$0.10 per dollar collected for administrative purposes. Actual collections for FY 03-04 were \$4,374,325. As of June 30, 2004, thirty-four landfills and one incinerator were accepting waste. Actual collections from the \$0.75 per ton tipping fee surcharge for FY 03-04 were \$5,280,557.

## **B. Fund Expenditures**

In FY 03-04, expenditures from the SWMF were \$11,386,323. The largest expenditure was for financial assistance (grants). DCA spent \$2,195,072 to provide technical assistance to local governments. DCA's administrative costs including overhead was \$744,208, which was less than 7 percent of the total expenditures. Over 93 percent of FY 03-04 expenditures went directly back to local governments in the form of grants and services and indirectly through technical assistance.

# **VI. MUNICIPAL SOLID WASTE ADVISORY COMMITTEE (SWAC)**

The SWAC is comprised of fifteen members who are appointed by the Commissioner of TDEC to serve four-year terms. The SWAC reviews and advises the state agencies on the implementation of the SWMA. The SWAC met two times in FY 03-04 to review TDEC's activities, expenditures, and funding under the SWMA and to consider appropriate changes to the solid waste assistance programs. A list of the members and what interests they represent is provided in Appendix G.

At the October 15, 2003 meeting of the SWAC, members acted on thirteen recommendations from the Solid Waste Management Act Review Process Task Force.

The Task Force was formed to review the SWMA and make recommendations to the SWAC on how to modify the Act. Made up of solid waste professionals from across the state, the Task Force's objectives included identifying and evaluating issues regarding the implementation of the SWMA; setting priorities on what issues to address; having open discussion on issues and considering all aspects when making recommendations; and discussing findings and making recommendations for consideration by the SWAC.

The thirteen final recommendations presented to the SWAC included reauthorization of the tipping fee surcharge, consolidation of waste reduction planning reporting, continuation of the 25 percent waste reduction and diversion goal, and fee increases for waste tires. The SWAC reached consensus and recommended the following legislative changes to the Department:

- Seek reauthorization of the State Surcharge Fee on municipal solid waste disposed of at Class 1 solid waste disposal facilities.
- Eliminate the Five-Year Updates that impose unnecessary work on solid waste regions. The SWAC suggested that the APR could be changed to streamline the reporting function while maintaining quality reporting.
- Continue the 25 percent waste reduction and diversion goal.

## VII. SUMMARY

The highlights of FY 03-04 include receiving the 2003 annual progress reports from which the sixty-six solid waste planning regions will be judged on their good faith effort toward meeting the 25 percent waste reduction and diversion goal; administering the first year MSE Environmental contract for mobile household hazardous waste collection events; and the SWAC's consensus on final recommendations for legislative changes to the SWMA.

December 31, 2003 was the deadline for Regions to meet the 25 percent waste reduction and diversion goal. DCA staff will be diligently reviewing and evaluating information provided in the 2003 Annual Progress Reports received by March 31, 2004. Regions not meeting the goal will then be judged as to whether they made a "good faith" effort in meeting the SWMA's solid waste goals. Rules will be written outlining this evaluation process.

Based on APR submitted and calculated using the 1995 base year data, the state achieved a 18.1 percent per capita waste reduction and diversion rate in 2003 compared with 20.3 percent in 2002. DCA is examining the decrease in waste reduction to determine areas that may have negatively affected these diversion rates and is adjusting its strategies accordingly. Electronic reporting of the APR continues to result in a tremendous time savings for Regions, their consultants, and DCA staff.

The first year's contract with MSE Environmental for the household hazardous waste mobile collection presented some unique challenges for DCA. However, under this new contract 177,503 pounds of electronics waste was collected and properly disposed at no extra cost. The new contract also allows for consolidation of latex paint to be left on-site for reuse by the county. Latex paint has been a high cost item collected at the mobile collection events. During FY 03-04, approximately 4,965 gallons of paint was reused by counties for painting of jails, schools and for use as alternate daily cover at their landfills.

The SWAC acted on the thirteen recommendations presented to them by the SWMA Review Process Task Force at their October 2003 meeting. Three of the Task Force recommendations were referred to TDEC for legislative changes. Among the recommendations was reauthorization of the tipping fee surcharge, which is needed to continue to support development and implementation of local integrated solid waste management programs.

DCA continues to utilize its databases to capture information from the Regions' APR concerning the 25 percent reduction and diversion goal and information from over 23,000 waste tire manifests. These databases provide for more efficient compilation and retrieval of information to assess the effectiveness of waste reduction and diversion and waste tire programs.

Financial assistance from the SWMF continued to provide Regions and local governments with funding for programs including recycling, Household Hazardous Waste, and waste tires. Funding for these programs

provides a continuing foundation for developing and improving integrated solid waste management programs. The SWMF expenditures are dependent on annual revenues from the tipping fee surcharge and tire pre-disposal fees. The SWAC, under Chairman Goddard's leadership, provides excellent guidance to DCA to assist local governments with technical and financial support.

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**APPENDIX A**  
**25 Percent Waste Reduction Diversion for Regions**  
**12/31/2003**

		<b>Total Generation</b>	<b>Tonnage</b>		<b>Population</b>		<b>% Change (plus or minus)</b>			
<b>Region</b>	<b>County</b>	<b>Current Year Generation (Disposal + Reported Diversion)</b>	<b>Current Year Disposal</b>	<b>Base Year Disposal</b>	<b>Current Year Population</b>	<b>Base Year Population</b>	<b>% Reduction Compared to Base Year</b>	<b>MSW % Reduction Pop Ratio</b>	<b>MSW % Reduction Using Pop Econ Ratio</b>	<b>Disposal Per Capita Ratio</b>
Anderson	Anderson	87,117	73,500	71,072	71,904	71,663	-3%	-3%	-9%	1.02
Bedford	Bedford	117,221	40,327	30,286	40,253	33,126	-10%	-10%	-17%	1.00
Benton	Benton	16,154	12,690	10,461	16,500	15,770	-16%	-16%	-34%	0.77
<b>Southeast</b>		<b>839,456</b>	<b>625,502</b>	<b>648,218</b>	<b>574,076</b>	<b>527,958</b>	<b>11%</b>	<b>11%</b>	<b>6%</b>	<b>1.09</b>
	Bledsoe	5,768	4,895		12,556	10,173				0.39
	Bradley	178,346	142,019		90,264	78,830				1.57
	Grundy	6,432	6,311		14,389	13,695				0.44
	Hamilton	491,441	350,607		309,510	293,771				1.13
	Marion	34,750	25,853		27,880	26,496				0.93
	McMinn	84,448	58,620		50,632	45,001				1.16
	Meigs	5,332	5,276		11,430	9,198				0.46
	Polk	1,739	1,399		16,171	14,263				0.09
	Rhea	27,436	27,082		29,286	26,883				0.92
	Sequatchie	3,764	3,440		11,958	9,648				0.29
Blount	Blount	148,967	72,384	156,217	111,510	97,014	60%	60%	59%	0.65
Campbell	Campbell	27,431	18,260	13,461	40,125	37,033	-25%	-25%	-32%	0.46
Carroll	Carroll	32,432	20,867	30,818	29,342	28,617	34%	34%	21%	0.71



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<b>Region</b>	<b>County</b>	<b>Current Year Generation (Disposal + Reported Diversion)</b>	<b>Current Year Disposal</b>	<b>Base Year Disposal</b>	<b>Current Year Population</b>	<b>Base Year Population</b>	<b>% Reduction Compared to Base Year</b>	<b>MSW % Reduction Pop Ratio</b>	<b>MSW % Reduction Using Pop Econ Ratio</b>	<b>Disposal Per Capita Ratio</b>
<b>Central</b>		<b>613,023</b>	<b>383,972</b>	<b>247,043</b>	<b>304,286</b>	<b>238,361</b>	<b>-22%</b>	<b>-22%</b>	<b>-26%</b>	<b>1.26</b>
	Cannon	6,946	6,394		13,204	11,399				0.48
	Coffee	81,320	53,085		49,643	43,696				1.07
	Rutherford	464,451	301,526		202,310	148,041				1.49
	Warren	60,306	22,967		39,129	35,225				0.59
Cheatham	Cheatham	32,548	13,316	18,406	37,364	32,248	38%	38%	34%	0.36
Claiborne	Claiborne	27,382	13,909	24,033	30,415	28,542	46%	46%	43%	0.46
Clay	Clay	4,717	4,500	3,591	7,947	7,230	-14%	-14%	-42%	0.57
Cocke	Cocke	19,627	14,863	40,821	34,329	31,110	67%	67%	65%	0.43
<b>C-D-G</b>		<b>147,506</b>	<b>87,724</b>	<b>94,393</b>	<b>99,721</b>	<b>97,217</b>	<b>9%</b>	<b>9%</b>	<b>-4%</b>	<b>0.88</b>
	Crockett	13,422	11,391		14,491	13,589				0.79
	Dyer	67,160	41,506		37,308	35,900				1.11
	Gibson	66,924	34,827		47,922	47,728				0.73
Cumberland	Cumberland	58,688	32,036	40,371	49,391	40,445	35%	35%	36%	0.65
Davidson	Davidson	1,079,542	424,177	850,000	569,842	530,796	54%	54%	51%	0.74
Decatur	Decatur	12,372	6,815	6,758	11,610	10,788	6%	6%	-12%	0.59
DeKalb	DeKalb	14,143	13,966	15,812	18,037	15,290	25%	25%	24%	0.77
Dickson	Dickson	63,337	32,180	29,501	44,935	38,740	6%	6%	4%	0.72

**APPENDIX A**  
**25 Percent Waste Reduction Diversion for Regions**  
**12/31/2003**

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<b>Region</b>	<b>County</b>	<b>Current Year Generation (Disposal + Reported Diversion)</b>	<b>Current Year Disposal</b>	<b>Base Year Disposal</b>	<b>Current Year Population</b>	<b>Base Year Population</b>	<b>% Reduction Compared to Base Year</b>	<b>MSW % Reduction Pop Ratio</b>	<b>MSW % Reduction Using Pop Econ Ratio</b>	<b>Disposal Per Capita Ratio</b>
Fayette	Fayette	21,162	15,662	11,751	32,289	26,954	-11%	-11%	-9%	0.49
Fentress	Fentress	14,994	10,079	9,034	16,935	15,565	-3%	-3%	-16%	0.60
Grainger	Grainger	9,204	6,576	18,660	21,445	18,667	69%	69%	67%	0.31
Greene	Greene	74,380	56,584	74,355	63,991	58,095	31%	31%	30%	0.88
Hamblen	Hamblen	168,222	94,547	116,340	58,851	52,763	27%	27%	24%	1.61
Hancock	Hancock	2,233	2,211	3,332	6,702	6,844	32%	32%	31%	0.33
Hardeman	Hardeman	24,300	21,069	25,892	28,174	24,184	30%	30%	20%	0.75
Hawkins	Hawkins	51,322	48,661	53,403	55,037	47,727	21%	21%	14%	0.88
Haywood	Haywood	48,007	13,167	16,952	19,626	19,608	22%	22%	15%	0.67
Henderson	Henderson	53,626	13,639	34,856	25,900	23,245	65%	65%	64%	0.53
Henry	Henry	24,664	11,067	29,379	31,185	29,429	64%	64%	61%	0.35
Hickman	Hickman	17,539	9,756	7,879	23,352	19,068	-1%	-1%	-22%	0.42
Houston	Houston	4,982	3,760	3,829	8,085	7,579	8%	8%	0%	0.47
Humphreys	Humphreys	47,478	16,390	21,268	18,123	16,532	30%	30%	22%	0.90
<b>Interlocal</b>		<b>129,168</b>	<b>98,908</b>	<b>98,326</b>	<b>101,675</b>	<b>83,395</b>	<b>17%</b>	<b>17%</b>	<b>6%</b>	<b>0.97</b>
	Franklin	49,586	35,442		40,512	36,442				0.87
	Giles	52,848	26,851		29,390	18,168				0.91
	Lincoln	26,734	22,144		31,773	28,785				0.70

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<b>Region</b>	<b>County</b>	<b>Current Year Generation (Disposal + Reported Diversion)</b>	<b>Current Year Disposal</b>	<b>Base Year Disposal</b>	<b>Current Year Population</b>	<b>Base Year Population</b>	<b>% Reduction Compared to Base Year</b>	<b>MSW % Reduction Pop Ratio</b>	<b>MSW % Reduction Using Pop Econ Ratio</b>	<b>Disposal Per Capita Ratio</b>
Jackson	Jackson	6,495	4,793	4,384	11,208	9,326	9%	9%	-5%	0.43
Jefferson	Jefferson	37,696	27,641	27,840	46,919	38,838	18%	18%	13%	0.59
Knox	Knox	1,235,338	598,023	464,398	392,995	361,407	-18%	-18%	-19%	1.52
<b>L-O-W</b>		<b>158,860</b>	<b>80,028</b>	<b>65,723</b>	<b>74,524</b>	<b>73,298</b>	<b>-20%</b>	<b>-20%</b>	<b>-26%</b>	<b>1.07</b>
	Lake	7,224	5,394		7,824	8,539				0.69
	Obion	105,180	56,476		32,386	32,413				1.74
	Weakley	46,456	18,158		34,314	32,346				0.53
Lauderdale	Lauderdale	25,255	12,809	24,810	27,077	24,103	54%	54%	44%	0.47
Lawrence	Lawrence	61,160	26,784	36,096	40,704	38,292	30%	30%	23%	0.66
Lewis	Lewis	13,059	7,200	8,028	11,438	10,292	19%	19%	0%	0.63
Loudon	Loudon	101,691	75,881	109,602	41,624	35,927	40%	40%	42%	1.82
Madison	Madison	714,511	128,990	183,211	93,873	83,715	37%	37%	36%	1.37
<b>Marshall- Maury</b>		<b>235,595</b>	<b>149,208</b>	<b>166,776</b>	<b>141,786</b>	<b>90,107</b>	<b>43%</b>	<b>43%</b>	<b>20%</b>	<b>1.05</b>
	Marshall	45,441	41,104		27,537	24,900				1.49
	Maury	190,153	108,104		73,198	65,207				1.48
Monroe	Monroe	103,555	27,379	27,419	41,051	32,867	20%	20%	14%	0.67
<b>M-R-S</b>		<b>285,094</b>	<b>157,184</b>	<b>132,149</b>	<b>212,092</b>	<b>182,352</b>	<b>-2%</b>	<b>-2%</b>	<b>-1%</b>	<b>0.74</b>
	Montgomery	199,637	108,600		141,064	123,811				0.77

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<b>Region</b>	<b>County</b>	<b>Current Year Generation (Disposal + Reported Diversion)</b>	<b>Current Year Disposal</b>	<b>Base Year Disposal</b>	<b>Current Year Population</b>	<b>Base Year Population</b>	<b>% Reduction Compared to Base Year</b>	<b>MSW % Reduction Pop Ratio</b>	<b>MSW % Reduction Using Pop Econ Ratio</b>	<b>Disposal Per Capita Ratio</b>
	Robertson	69,311	41,425		58,181	47,955				0.71
	Stewart	16,145	7,158		12,847	10,586				0.56
Moore	Moore	58,565	2,852	1,404	5,911	5,189	-78%	-78%	-78%	0.48
Morgan	Morgan	12,747	9,284	8,838	20,080	18,280	4%	4%	-16%	0.46
<b>North Central</b>		<b>49,040</b>	<b>21,036</b>	<b>25,873</b>	<b>46,695</b>	<b>38,732</b>	<b>33%</b>	<b>33%</b>	<b>26%</b>	<b>0.45</b>
	Macon	14,873	9,630		21,023	16,927				0.46
	Smith	29,102	8,115		18,225	15,356				0.45
	Trousdale	5,065	3,291		7,447	6,449				0.44
<b>Northeast</b>		<b>251,961</b>	<b>222,202</b>	<b>150,983</b>	<b>204,129</b>	<b>184,428</b>	<b>-33%</b>	<b>-33%</b>	<b>-39%</b>	<b>1.09</b>
	Carter	47,643	41,926		58,394	52,791				0.72
	Johnson	7,886	7,650		17,948	16,341				0.43
	Unicoi	18,965	17,907		17,709	16,819				1.01
	Washington	177,467	154,720		110,078	98,477				1.41
Overton	Overton	11,405	10,569	7,526	20,151	18,309	-28%	-28%	-32%	0.52
Perry	Perry	8,356	5,755	6,712	7,627	7,055	21%	21%	19%	0.75
Pickett	Pickett	9,426	3,037	1,839	5,006	4,583	-51%	-51%	-47%	0.61
Putnam	Putnam	166,438	35,239	117,514	64,973	57,319	74%	74%	73%	0.54
Roane	Roane	32,613	29,238	60,087	52,424	48,607	55%	55%	47%	0.56

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**25 Percent Waste Reduction Diversion for Regions**  
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<b>Region</b>	<b>County</b>	<b>Current Year Generation (Disposal + Reported Diversion)</b>	<b>Current Year Disposal</b>	<b>Base Year Disposal</b>	<b>Current Year Population</b>	<b>Base Year Population</b>	<b>% Reduction Compared to Base Year</b>	<b>MSW % Reduction Pop Ratio</b>	<b>MSW % Reduction Using Pop Econ Ratio</b>	<b>Disposal Per Capita Ratio</b>
Scott	Scott	23,814	21,634	15,854	21,675	19,550	-23%	-23%	-27%	1.00
Sevier	Sevier	183,948	58,301	115,040	75,503	59,542	60%	60%	60%	0.77
Shelby	Shelby	2,594,902	1,650,509	1,555,747	906,178	865,058	-1%	-1%	-6%	1.82
<b>Shiloh</b>		<b>177,444</b>	<b>45,214</b>	<b>45,220</b>	<b>83,654</b>	<b>77,544</b>	<b>7%</b>	<b>7%</b>	<b>2%</b>	<b>0.54</b>
	Chester	10,750	5,477		15,842	13,703				0.35
	Hardin	25,734	20,766		25,927	24,399				0.80
	McNairy	45,194	10,039		24,938	23,410				0.40
	Wayne	95,766	8,932		16,947	16,032				0.53
Sullivan	Sullivan	291,917	192,292	242,197	153,050	148,783	23%	23%	19%	1.26
Sumner	Sumner	290,101	98,920	211,340	138,752	116,845	61%	61%	59%	0.71
Tipton	Tipton	78,913	34,309	42,403	54,184	43,423	35%	35%	29%	0.63
Union	Union	20,964	10,772	6,925	18,830	15,147	-25%	-25%	-32%	0.57
Van Buren	Van Buren	957	931	1,609	5,478	5,095	46%	46%	42%	0.17
White	White	23,627	16,520	20,676	23,584	21,304	28%	28%	22%	0.70
Williamson	Williamson	252,561	132,446	78,547	141,301	102,061	-22%	-22%	-17%	0.94
Wilson	Wilson	187,693	77,445	69,184	95,366	77,150	9%	9%	11%	0.81
<b>Statewide</b>	<b>Statewide</b>	<b>11,738,642</b>	<b>6,287,488</b>	<b>6,892,471</b>	<b>5,841,748</b>	<b>5,246,131</b>	<b>18%</b>	<b>18%</b>	<b>14%</b>	<b>1.08</b>

**APPENDIX B**  
**Household Hazardous Waste Mobile Collection Service Data**  
**FY 03-04**

County	Participating Households	Participation Rate	Total Cost	Total Pounds	Cost per Household
Anderson	864	3.02%	\$ 46,782.82	65,116	\$ 54.15
Bedford	320	2.34%	\$ 16,285.43	15,888	\$ 50.89
Blount	686	1.71%	\$ 33,977.95	49,451	\$ 49.53
Blount	921	2.29%	\$ 33,977.95	49,451	\$ 36.89
Bradley	480	1.50%	\$ 27,693.82	30,838	\$ 57.70
Cannon	79	1.64%	\$ 7,628.07	5,231	\$ 96.56
Carter	202	0.95%	\$ 15,398.97	14,936	\$ 76.23
Cheatham	191	1.39%	\$ 15,474.39	16,418	\$ 81.02
Chester	52	0.90%	\$ 6,298.03	3,109	\$ 121.12
Coffee	302	1.66%	\$ 17,500.02	18,207	\$ 57.95
Cumberland	341	1.98%	\$ 17,446.13	16,055	\$ 51.16
Dickson	284	1.73%	\$ 21,281.82	21,540	\$ 74.94
Dyer	138	0.95%	\$ 12,914.94	17,045	\$ 93.59
Fentress	114	1.79%	\$ 9,410.14	7,251	\$ 82.55
Franklin	205	1.38%	\$ 13,398.98	18,234	\$ 65.36
Giles	289	2.54%	\$ 13,677.76	16,306	\$ 47.33
Greene	419	1.76%	\$ 25,823.62	30,757	\$ 61.63
Hamblen	210	0.98%	\$ 9,570.22	8,113	\$ 45.57
Hawkins	119	0.61%	\$ 10,201.86	9,040	\$ 85.73
Henderson	52	0.54%	\$ 7,759.36	3,348	\$ 149.22
Henry	223	1.88%	\$ 13,675.00	15,157	\$ 61.32
Hickman	54	0.68%	\$ 8,073.54	11,507	\$ 149.51
Humphreys	137	2.04%	\$ 9,747.78	8,371	\$ 71.15
Johnson	47	0.71%	\$ 7,129.99	4,342	\$ 151.70
Lawrence	83	0.53%	\$ 9,332.99	11,135	\$ 112.45
Lewis	25	0.58%	\$ 5,353.08	3,188	\$ 214.12
Lincoln	262	2.24%	\$ 14,048.59	17,304	\$ 53.62
Loudon	460	3.01%	\$ 25,750.55	30,090	\$ 55.98
Macon	78	1.10%	\$ 7,596.82	9,344	\$ 97.40
Madison	436	1.29%	\$ 30,384.76	39,612	\$ 69.69
Madison	337	0.99%	\$ 16,194.59	19,412	\$ 48.06
Marshall	150	1.46%	\$ 11,467.91	11,572	\$ 76.45
Maury	354	1.30%	\$ 20,606.68	24,670	\$ 58.21
McMinn	294	1.60%	\$ 15,269.09	19,434	\$ 51.94
Meigs	39	1.01%	\$ 6,046.56	3,057	\$ 155.04
Monroe	194	1.43%	\$ 12,579.68	13,246	\$ 64.84
Montgomery	727	1.46%	\$ 28,503.03	31,740	\$ 39.21
Montgomery	544	1.09%	\$ 27,877.62	26,514	\$ 51.25
Moore	37	1.77%	\$ 5,494.82	1,887	\$ 148.51
Obion	58	0.45%	\$ 7,702.96	5,138	\$ 132.81
Putnam	448	1.92%	\$ 20,292.84	26,183	\$ 45.30
Roane	378	1.89%	\$ 17,596.64	17,791	\$ 46.55
Robertson	244	1.18%	\$ 18,469.12	18,765	\$ 75.69
Rutherford	756	1.18%	\$ 32,991.24	53,634	\$ 43.64
Rutherford	1010	1.58%	\$ 41,906.63	65,072	\$ 41.49

**APPENDIX B**  
**Household Hazardous Waste Mobile Collection Service Data**  
**FY 03-04**

County	Participating Households	Participation Rate	Total Cost	Total Pounds	Cost per Household
Scott	24	0.30%	\$ 5,116.01	1,425	\$ 213.17
Sevier	334	1.33%	\$ 16,102.20	20,107	\$ 48.21
Stewart	60	1.33%	\$ 8,285.85	6,234	\$ 55.00
Sullivan	495	0.82%	\$ 27,773.56	32,868	\$ 56.11
Sumner	325	0.67%	\$ 23,571.35	27,861	\$ 72.53
Tipton	178	0.97%	\$ 14,208.93	16,502	\$ 79.83
Unicoi	103	1.49%	\$ 10,569.96	7,949	\$ 102.62
Warren	272	1.90%	\$ 12,770.76	11,488	\$ 46.95
Washington	497	1.22%	\$ 22,768.10	27,499	\$ 45.81
Williamson	1486	3.34%	\$ 54,690.58	91,557	\$ 36.80
Williamson	1700	3.82%	\$ 56,947.54	94,545	\$ 33.50
Wilson	869	2.68%	\$ 34,394.47	46,528	\$ 39.58
<b>Totals/Averages</b>	<b>19986</b>	<b>1.51%</b>	<b>\$ 1,063,794.10</b>	<b>1,289,062</b>	<b>\$ 76.93</b>

<b>Urban Areas</b>					
Shelby	1572	0.45%	\$ 84,589.21	149,691	\$ 53.81
<b>Statewide</b>					
<b>Totals/Averages</b>	<b>21,558</b>	<b>1.48%</b>	<b>\$ 1,148,383.31</b>	<b>1,438,753</b>	<b>\$ 53.26</b>

**APPENDIX C**  
**Recycling Equipment Grant Awards**  
**FY 03-04**

Grantee	Amount	Equipment
Bledsoe County	\$22,433	Roll-off containers, trailer
Campbell, Co. Env.Serv.	\$18,185	Skid steer loader
Carroll County	\$18,400	Box truck
Chester County	\$21,278	Roll-off containers, trailer
Clinton, City of	\$11,950	30 yd trailer vacuum
Cocke County	\$19,194	Brush chipper
Cornersville, Town of	\$14,466	Brush chipper
Dandridge, Town of	\$4,918	Recycle bins, containers
Decatur County	\$13,437	Conveyor system, shredder
Fentress County Solid Waste	\$24,885	Truck scales
Grainger County	\$25,000	Baler, forklift
Henry County	\$20,408	Box truck
Jacksboro, Town of	\$15,442	35 gal carts
Lafollette, City of	\$19,872	Leaf vacuum, hopper
Lewis County	\$21,255	Skid steer loader
Loudon County	\$5,112	Recycling trailers
Maury County	\$10,091	Containers
Monroe County	\$11,904	Roll-off with compactor
Moore County	\$10,800	Fork lift
Oliver Springs, Town of	\$11,875	Leaf vacuum
Warren County	\$25,000	Truck scales
Winfield, City of	\$20,092	Brush chipper
<b>Total Recycling Equipment</b>	<b>\$365,997</b>	

These grants were awarded in FY 03-04. The grant term expired on June 30, 2004.



**APPENDIX D**  
**Recycling Rebate Grant Awards**  
**FY 03-04**

<b>Rebate Recipient</b>	<b>Amount</b>
<b>Davidson County / Nashville</b>	\$66,230
Belle Meade	\$0
Berry Hill	\$0
Forest Hills	\$0
Goodlettsville	\$2,136
Lakewood	\$0
Oak Hill	\$0
Ridgetop	\$0
<b>Hamilton County</b>	\$28,911
Chattanooga	\$30,649
Collegedale	\$0
East Ridge	\$8,539
Lakesite	\$0
Lookout Mountain	\$0
Red Bank	\$0
Ridgeside	\$0
Signal Mountain	\$1446
Soddy Daisy	\$0
<b>Knox County</b>	\$44,178
Farragut	\$0
Knoxville, City of	\$35,574
<b>Madison County</b>	\$15,508
Humboldt	\$0
Jackson, City of	\$28,728
Medon	\$0
<b>Rutherford County</b>	\$26,966
Murfreesboro	\$0
Smyrna	\$0
<b>Sevier County</b>	\$16,059
Gatlinburg	\$0
Pigeon Forge	\$0
Pitman Center	\$0
Sevierville	\$0
<b>Shelby County</b>	\$30,105
Arlington	\$680

<b>Rebate Recipient</b>	<b>Amount</b>
Bartlett	\$9,479
Collierville	\$7,736
Germantown	\$3,988
Lakeland	\$1,616
Memphis	\$146,909
Millington	\$0
<b>Sullivan County</b>	\$14,288
Bluff City	\$0
Bristol	\$4,113
Johnson City	\$7,681
Kingsport	\$6,847
<b>Sumner County</b>	\$27,499
Gallatin	\$0
Hendersonville	\$0
Millersville	\$1,044
Mitchellville	\$0
Portland	\$0
Westmoreland	\$0
Whitehouse	\$0
<b>Washington County</b>	\$6,812
Johnson City	\$0
Jonesborough	\$596
<b>Williamson County</b>	\$20,347
Brentwood	\$0
Fairview	\$0
Franklin	\$0
Thompson's Station	\$0
<b>Total Rebate Funds</b>	<b>\$558,622</b>

**APPENDIX E**  
**Waste Tire Grant Program Awards**  
**FY 03-04**

<b>Grantee</b>	<b>Total Expenditures</b>	<b>Tires (actual tons)</b>
Anderson County	\$53,706	767.23
Bedford County	\$28,731	450.41
Benton County	\$8663	123.76
Bledsoe County	\$5,559	79.42
Blount County	\$72,450	1,035.00
Bradley County	\$47,652	680.74
Campbell County	\$30,465	453.81
Cannon County	\$8,929	127.56
Carroll County	\$17,728	253.25
Carter County	Hub Partner	0
Cheatham County	\$9,082	129.74
Chester County	\$8,097	115.67
Claiborne County	\$8,138	116.25
Clay County	\$883	12.61
Cocke County	\$24,515	236.98
Coffee County	\$36,702	545.56
Crockett County	\$8,560	122.29
Cumberland County	\$32,611	465.87
Davidson County	\$570,687	8,152.67
Decatur County	\$4,766	68.08
DeKalb County	\$8,298	118.54
Dickson County	\$28,763	410.90
Dyer County	\$24,697	352.82
Fayette County	\$54,872	783.89
Fentress County	\$12,709	195.74
Franklin County	\$30,017	436.82
Gibson County	\$36,630	523.28

<b>Grantee</b>	<b>Total Expenditures</b>	<b>Tires (actual tons)</b>
Giles County	\$17,488	249.83
Grainger County	\$5,807	82.95
Greene County	\$11,605	165.79
Grundy County	\$2,665	38.07
Hamblen County	\$40,555	579.36
Hamilton County	\$285,356	4,517.70
Hancock County	\$3,243	46.33
Hardeman County	\$7,789	111.27
Hardin County	\$30,540	436.29
Hawkins County	\$17,935	256.21
Haywood County	\$14,150	202.14
Henderson County	\$16,576	236.80
Henry County	\$29,859	426.56
Hickman County	\$11,824	168.91
Houston County	\$5,493	78.47
Humphreys County	\$13,705	200.86
Jackson County	\$7,915	113.07
Jefferson County	\$0	0
Johnson County	Hub Partner	0
Knox County	\$350,000	6,576.77
Lake County	\$977	13.95
Lauderdale County	\$10,072	143.88
Lawrence County	\$30,520	741.71
Lewis County	\$8,687	170.17
Lincoln County	\$23,957	385.16
Loudon County	\$19,667	280.95
McMinn County	\$29,091	415.58

**APPENDIX E**  
**Waste Tire Grant Program Awards**  
**FY 03-04**

<b>Grantee</b>	<b>Total Expenditures</b>	<b>Tires (actual tons)</b>
McNairy County	\$17,025	243.21
Macon County	\$13,682	195.45
Madison County	\$70,201	1,180.92
Marion County	\$21,232	306.07
Marshall County	\$20,461	353.34
Maury County	\$49,493	707.04
Meigs County	\$0	0
Monroe County	\$24,287	346.98
Montgomery County	\$90,188	1,288.40
Moore County	\$2,673	38.19
Morgan County	\$10,519	150.27
Obion County	\$11,967	170.96
Overton County	\$15,379	219.70
Perry County	\$2,177	31.10
Pickett County	\$2,384	34.06
Polk County	\$12,269	187.15
Putnam County	\$34,508	492.97
Rhea County	\$16,647	327.82
Roane County	\$25,267	360.96
Robertson County	\$34,418	491.68
Rutherford County	\$139,139	2,025.70
Scott County	\$4,698	67.11

<b>Grantee</b>	<b>Total Expenditures</b>	<b>Tires (actual Tons)</b>
Sequatchie County	\$8,692	139.36
Sevier County	\$49,960	713.72
City of Memphis	\$495,826	7,083.23
Smith County	\$12,120	173.14
Stewart County	Hub Partner	0
Sullivan County	Hub Partner	0
Sumner County	\$62,276	889.66
Tipton County	\$35,812	511.60
Trousdale County	\$5,153	73.62
Unicoi County	Hub Partner	0
Union County	\$10,915	155.93
Van Buren County	\$0	0
Warren County	\$29,259	439.00
Washington County	\$223,868	3,198.11
Wayne County	\$0	0
Weakley County	\$19,524	278.91
White County	\$17,660	252.28
Williamson County	\$96,803	1,456.97
Wilson County	\$40,066	572.37
<b>TOTAL</b>	<b>\$3,895,928</b>	<b>58,464.65</b>

**APPENDIX G**  
**Municipal Solid Waste Advisory Committee**

Grantee	Grant Amount	Project
Carroll County	\$200,000	Recycling Center
Cheatham County	\$105,000	Upgrade Recycling Center
Clay County	\$200,000	Material Recovery Facility
Decatur County	\$200,000	Building, truck, backhoe, containers
Fayette County	\$120,750	Compactor truck, brush chipper, forklift
Grainger County	\$200,000	Building construction
Hamilton County	\$48,300	Roll-off truck, roll-off containers
Hancock County	\$122,220	Recycling center, truck, equipment
Hardeman County	\$176,000	Convenience centers, containers, education
Henderson County	\$160,000	Convenience center, containers, tow motor
Houston County	\$34,539	Expand recycling center, baler, oil container
Humphreys County	\$36,169	Relocate convenience center, baler
City of Johnson City	\$200,000	Tub grinder, rear loader
Town of Jonesborough	\$100,000	Tub grinder, containers
Knox County	\$200,000	Expand composting facilities
Lawrence County	\$200,000	Upgrade facilities, containers, baler
Macon County	\$177,614	Roll-off truck, computer system, construction
Madison County	\$83,763	Roll-off truck, containers, signage
Marshall County	\$76,350	Upgrade recycling facility, equipment, loader
McNairy County	\$156,000	Service truck, tractor, scraper, bushhog
Grantee	Grant Amount	Project

Metro Nashville/Davidson County	\$139,035	400-eight cubic yard containers, educational material
Montgomery County	\$15,300	Paint can crusher, drums, mixer, freon reclaimer, refractometer
Morgan County	\$135,000	Crawler loader
Orange Grove Center	\$86,500	Facility repair, equipment
Overton County	\$139,500	Storage building, paving, baler
Scott County	\$151,225	Reuse center, equipment, truck with dump body
Sevier County	\$200,000	Digester
Union County	\$88,470	Building, boxes, equipment
Van Buren County	\$200,000	Building, forklift, baler, crusher
Warren County	\$196,700	Truck, paving
<b>TOTAL</b>	<b>\$4,148,435</b>	

**APPENDIX G**  
**Municipal Solid Waste Advisory Committee**

<b>MEMBER</b>	<b>REPRESENTATION</b>	<b>DATE APPOINTED</b>	<b>TERM EXPIRATION</b>
Doug Goddard, Chairman TN County Commissioners Assoc.	County Governments	1-01-01	12-31-04
Mayor J. H. Graham, III City of Crossville	Municipalities	5-29-03	12-31-03
Barbara Dodge Private Citizen	Public – West Tennessee	1-01-01	12-31-04
John Evans, Director Knox County Solid Waste	Urban Counties	1-1-01	12-31-04
Barry R. Field Fairfield Glade Community	Environmental Interests	3-23-00	12-31-03
Paul Patterson Administrator of Solid Waste Memphis, TN	Urban Municipalities	3-23-00	12-31-04
Vacant	Recycling Industry		
Jimmy Matlock, President Matlock Tire Service, Inc.	Tire Industry	1-01-01	12-31-04
Steve Field Private Citizen	Public – East Tennessee	04-23-01	12-31-04
Tim Wells Waste Management, Inc.	Waste Management Industry	03-13-01	12-31-03
William C. Rankin Olin Corporation	Business Interests	3-23-00	12-31-03
Susan Reid, Director First TN Development District	Development Districts	1-01-01	12-31-04
Rhedona Rose, Atty. Farm Bureau	Agriculture	1-01-01	12-31-04
Mary Vowels Private Citizen	Public – Middle Tennessee	3-23-00	12-31-03
Lewis D. Bumpus Williamson County Solid Waste	Tennessee Environmental Council	05-08-01	12-31-04

**Ex Officio**

Mary Taylor  
Jack Barkenbus, Ph.D.  
Karen Stachowski

University of Tennessee Institute for Public Service  
University of Tennessee Waste Management Institute  
Department of Environment and Conservation

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